

locations. At the scanhead, the signals from a plurality of transducer elements are combined into a composite signal. Lines 40-43 of column 2 of the Peterson *et al.* patent indicates that a scanhead 10, which is shown in Figure 1, includes an array of transducer 12 that transmit beams at different angles over an image field. The Peterson *et al.* patent states in lines 51-56 of column 2:

the echoes returned from along each scanline are received by the elements of the array [in the scanhead 10], digitized as by an analog to digital conversion (not shown), and coupled to a digital beamformer 16. The digital beamformer delays and sums the echoes from the array elements to form a sequence of focused, coherent digital echo samples along each scanline.

Thus, the Peterson *et al.* patent clearly states that the signals from the transducer elements are *not* combined into a composite signal as specified in claim 14, but are instead individually coupled to the digital beamformer 16. If the signals from the transducer elements were combined into a composite signal at the scanhead 10, it would be impossible for the beamformer 16 to perform its beamforming function because beamforming requires that individual signals from respective transducer elements be combined after the phase of the individual signals have been adjusted. It is therefore clear that the Peterson *et al.* patent does not disclose the first element of claim 14.

The second element of claim 14 is the act of coupling the composite signal from the scanhead to the ultrasonic processor. As explained above, there is no composite signal generated at the scanhead 10 of the Peterson *et al.* system so that the Peterson *et al.* system cannot couple a composite signal from a scanhead to an ultrasonic processor. Therefore, the Peterson *et al.* patent does not disclose the second element of claim 14.

The final element of claim 14 occurs at the ultrasonic processor where the composite signal is separated into a plurality of components each of which corresponds to a signal from a respective transducer element. As explained above, the Peterson *et al.* patent does not describe a system in which a composite signal is coupled to an ultrasonic processor. Therefore, the Peterson *et al.* patent does not describe separating a composite signal into a plurality of components each of which corresponds to a signal from a respective transducer element as specified in claim 14.

Anticipation under section 102 does not exist if *any* of the elements of a claim are not identically disclosed in a prior art reference. MPEP §2131. In this case, *none* of the elements of claim 14 are disclosed in the Peterson *et al.* patent. The Peterson *et al.* patent does clearly fail to anticipate the subject matter of claim 14 and, therefore, dependent claims 15-23.

The obviousness rejection of claims 1-4 and 6 on the basis of the Peterson *et al.* patent in view of the Hwang *et al.* patent is also improper because the Peterson *et al.* patent is not properly citable as prior art for an obviousness rejection under Section 103. The named assignee of the Peterson *et al.* patent is ATL Ultrasound, Inc., which, at the time the invention described and claimed in this application was made, was a wholly owned subsidiary of Koninklijke Philips Electronics N.V., which is the assignee of this application. As indicated by "Example 1" of MPEP 706.02(1)(2), inventions owned by a wholly-owned subsidiary of a parent company and inventions owned by a parent company are commonly owned by the parent company. Pursuant to MPEP §706.02(1)(2)II, applicants' attorney hereby states that this application and the Peterson *et al.* patent were, at the time the invention in this application was made, owned by, or subject to an obligation of assignment to, the same person. Therefore, 35 U.S.C. §103(c) precludes it from being considered prior art under Section 102(e)-(g). As a result, if the Peterson *et al.* patent can constitute prior art, it can do so only under 35 U.S.C. §102(a). However, the Peterson *et al.* patent cannot be Section 102(a) prior art because the patent issued after the filing of this application. Therefore, the Peterson *et al.* patent cannot be used to reject the claims under 35 U.S.C. §103(a). The rejection of claims 1-4 and 6 under Section 103 should therefore be withdrawn.

Insofar as claims 1-28 are clearly allowable over the cited references, favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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Enclosures:

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Fee Transmittal Sheet (+ copy)

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